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PITNEY BOWES INC.
35 WATERVIEW DRIVE
P.O. BOX 3000
MSC 26-22
SHELTON, CT 06484-8000

EXAMINER	
KARLS, SHAY LYNN	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/707,470
Filing Date: December 16, 2003
Appellant(s): HOUGH ET AL.

George Macdonald
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10/22/07 appealing from the Office action mailed 5/21/07.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5589865	Beeson	12-1996
6353233	Kikuchi et al	3-2002
5457843	Gelardi et al.	10-1995

4055029 Kalbow 10-1977

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

A. Claim 1-3, 5, 7-8, 10, 15 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Beeson (USPN 5589865).

Beeson teaches a cleaning sheet comprising a substrate sheet (32) with a first and second surface (upper and lower surfaces) (claims 1 and 2). The first surface of the sheet comprises a first (36) and second strip (34) of material (claim 1). The first and second strips have a first strip height (figure 3) and are orientated perpendicular to the feed path of the apparatus (col. 5, lines 56-58; states that the strips could be parallel to the page width). The first and second strips of material will compress when drawn through a roller since they are both made from compliant materials (col. 5, lines 7-23) (claim 1). The first strip is separated from the second strip by a first distance (figure 2) (claim 1). The height of the strips is relatively large compared to the substrate thickness (figure 3) (claim 1). The strip height is more than double the height of the substrate (figure 3) (claim 8). The first strip of material comprises open cell foam (first strip 36 is made from an absorbent material which is inherently an open cell material) (claim 3). The first strip of material comprises lint-free, lead-free, non-abrasive, open cell foam (col. 5, lines 21-24) (claim 5). The substrate sheet has a leading edge handle (edge closest to 38 is considered the handle; any portion that can be gripped by a users hand can be considered a handle) (claim 7). The substrate sheet has approximately the planar dimensions of a letter-sized sheet of paper (col. 4, lines 65-67) (claim 8). The first strip is narrow to allow the first strip to vertically decompress when exiting the roller nip (claim 10). At least one of the first and second strips have the shape

of a rectangular prism (figure 3) (claim 15). The first strip has a width that is relatively narrow compared to the first distance (figure 4 and 6 shows that the first strip is narrower than the distance between the first and second strip) (claim 21).

B. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beeson ('865) in view of Kikuchi et al. (USPN 6353233).

Beeson teaches that the first strip of material is closer to the front edge of the substrate sheet that the second strip of material. Beeson however fails to teach that the second strip is made from an open cell foam material comprising brush bristles. Kikuchi teaches a cleaning sheet comprising bristles (3a). First, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the second strip from an open-cell foam, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin, 125 USPQ 416.* Additionally, it would have been obvious to modify the second strip of Beeson with an open-cell foam since it is an obvious modification well known in the art to duplicate parts for a multiple effect. *In re Harza, 124 USPQ 378, 380.* Having both strips be open-cell foam would only enhance the cleaning capabilities of Beeson's invention. In addition to modifying the material of the second strip, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the second strip so that it comprises bristles as taught by Kikuchi so that the bristles will aid in cleaning contaminates such as dust attached to the sensors (col. 4, lines 46-53).

C. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beeson ('865).

Beeson teaches all the essential elements of the claimed invention however fails to teach that the substrate has approximately the planar dimensions of a number 10 envelope. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Beeson's substrate to have dimensions approximately equal to a number 10 envelope since the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device. A device having the claimed relative dimensions would not perform differently that the prior art device, and therefore, the claimed device is not patentable distinct from the prior art device. MPEP 2144.04. Additionally, Beeson states that the cleaning apparatus could take on various dimensions (col. 4, line 67).

D. Claims 9, 13-14, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beeson ('865).

Beeson teaches all the essential elements of the claimed invention however fails to teach that the first strip height is approximately twelve times the substrate thickness, that the first strip height is 0.75 inches, the first strip has a width of 0.5 inches and that the first distance is 2.5 inches. It would have been obvious to modify Beeson's invention since the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device. A device having the claimed relative dimensions would not perform differently than the prior art device and therefore, the claimed device is not patentable distinct from the prior art device. MPEP 2144.

E. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beeson ('865).

Beeson teaches all the essential elements of the claimed invention however fails to teach that the substrate comprises a semi-rigid vinyl material or an ABS material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the substrate from a semi-rigid vinyl material or an ABS material, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin, 125 USPQ 416.*

F. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beeson ('865) in view of Gelardi et al. (USPN 5457843).

Beeson teaches all the essential elements of the claimed invention including strips having a rectangular shape. Beeson however fails to teach that the first strip has the shape of a triangular prism. It is well known to use triangular prisms to clean surfaces. For example, Gelardi teaches a cleaning sheet comprising triangular prisms (figure 1, 4 and 5) located on the top surface. It would have been obvious to at the time the invention was made to use a triangular prism as the shape of the cleaning strip on Beeson as taught by Gelardi since it is considered well known and further exemplified by Gelardi as a means for cleaning. Additionally, one of skill in the art would have expected Appellant's invention to perform equally well with either the rectangular or the triangular shape because both shapes perform the same function of cleaning optical sensors equally well.

G. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beeson ('865) in view of Kalbow (USPN 4055029).

Beeson teaches all the essential elements of the claimed invention however fails to teach that the rectangular first strip has a top surface with a notch. Kalbow teaches an open-cell foam

block comprising notches (12) in the top surface. It would have been obvious to one of skill in the art at the time the invention was made to modify the top surface of the first strip of Beeson with the notched top surface of Kalbow since the notches would allow the apparatus to clean more effectively (col. 1, lines 51-54). Additionally, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to notch a top surface of the first strip because Appellant has not disclosed that the notched surface provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Appellant's invention to perform equally well with either the claimed notched surface or the top surface as taught by Beeson because both top surfaces perform the same function of cleaning equally well. Therefore, it would have been obvious to one of ordinary skill in the art to modify Beeson to obtain the invention as specified in claim 19.

H. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beeson ('865).

Beeson teaches all the essential elements of the claimed invention however fails to teach that the rectangular first strip has a leading edge with an angled portion removed. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to remove an angled portion of the leading edge because Appellant has not disclosed that the angled edge provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Appellant's invention to perform equally well with either the claimed angled edge or the edge as taught by Beeson because both leading edges perform the same function of cleaning equally well. Therefore, it would have been obvious to one of ordinary skill in the art to modify Beeson to obtain the invention as specified in

claim 20. Additionally, regarding the shape of the cleaning strip, the court held that the shape or configuration of the claimed invention was a matter of choice, which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration or shape of the claimed strip was significant. *In re Dailey, 149 USPQ 47.*

(10) Response to Argument

A. Claims 1-3, 5, 7-8, 10, 15 and 21 are not unpatentable under 35 USC 102(b)

The appellant argues that there is no roller nip described in Beeson and the first and second strips fail to have vertical compression beyond a nip for cleaning. The examiner would like to point out that the appellant is not positively claiming a paper handling device with a roller nip. The appellant is only providing a positive recitation of a cleaning apparatus *for* cleaning a paper handling device. In response to appellant's argument that Beeson does not teach a roller nip in the claim, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Therefore since Beeson teaches the exact structure of the claim, it is clear that Beeson would be capable of cleaning a paper handling device and that the strips would vertically decompress when exiting the roller nip. Further, in response to the argument that neither the first nor second strips decompress, the reference's specification stated that the first strip (34) and the second strip are both "compliant" (col. 5, line 39). The specification goes on to further state that the first strip is made from a foam sponge. This clearly implies that the first strip is made from a material that will compress and decompress. The second strip (36) is made from an absorbent felt material (col. 5, lines 21-24).

Felt is known to compress when pressure is applied and also return to the original shape after compression. In addition, the fact that it is absorbent would lead one of skill in the art to recognize that it is capable of compression/decompression. Figure 5 of Beeson further shows that the first and second strips are capable of compressing when passing thru the print head (10) (see compressed portion of element 34 on figure 5). Thus if the substrate was used in the environment as claimed (through a roller nip), it is clear that it would be capable of functioning in the manner intended by the claimed invention since Beeson teaches all the structural elements of the claim.

B. Claim 4 is not unpatentable under 35 USC 103(a)

The Appellant argues that Beeson teaches away from using open cell foam for both the first and second strips since Beeson explicitly teaches using two different pad types. In response, while Beeson does teach using two different types of material for the strips, it is clear that it one of ordinary skill in the art would have readily recognized that the strips could be made from the same material since it has been held within the general skill of a worker in the art to select a known material on the basis of suitability for the intended use as a matter of obvious engineering choice. Since Beeson already teaches using open cell foam for the first strip, it would have been obvious to modify the second strip so that it is made from the same material since the open cell foam would increase the cleaning capabilities (duplicating parts for a multiple effect).

The Appellant further argues that Kikuchi teaches away from putting the bristles through a roller and thus teaches bristles parallel to the feed path and not perpendicular. In response, first the cleaning sheet with bristles of Kikuchi is passed through a roller device (10) for cleaning the surface of the rollers (abstract). Therefore, Kikuchi does not teach away from putting the bristles

through a roller. Secondly, the direction that the bristles are positioned in is not claimed. Therefore the bristles could be positioned in either parallel or perpendicular orientation to the feed path. Either way, the combination of Kikuchi and Beeson teaches all the structural limitations of the claimed invention.

C. Claim 6 is not unpatentable under 35 USC 103(a)

The Appellant argues that Beeson teaches away from using the dimensions of a number 10 envelope. In response, it is noted in col. 4, line 67, that other dimensions for the backing sheet can used. Therefore, the reference is not teaching away from using the claimed dimensions.

D. Claims 9, 13-14 and 17 are not unpatentable under 35 USC 103(a)

The Appellant argues that Beeson teaches away from using a first strip having a height of approximately twelve times the substrate thickness since it explicitly teaches having a height only twice the standard gap between the inkjet head and substrate of only 1mm. In response, it is clear that Beeson teaches using a pad with a height of only twice the standard gap, however, the rejection is not an anticipatory rejection but an obvious type rejection. Therefore while it is clear that the reference does not state that the first strip is twelve times the substrate thickness, it would have been obvious to one of skill in the art to modify the size of the height of the strip since the only difference between the reference and the present invention is a recitation of relative dimensions. The device would not perform differently than the prior art device, if put in the same environment, and therefore one of skill in the art would have recognized the ability to modify the size of the strips. Further the size of the strips of Beeson is determined by the size of

the gap and therefore, one of skill in the art would have found it obvious to modify the strips to any size necessary for various types of gaps in different environments.

E. Claims 11-12 are not unpatentable under 35 USC 103(a)

The Appellant argues that Beeson teaches away from using semi-rigid vinyl or ABS as the substrate material since the reference describes using cardstock as the backing sheet. As stated above, the examiner notes that cardstock is used by the reference and this is why an obvious-type rejection was made rather than an anticipatory rejection. While Beeson teaches using cardstock, one of skill in the art would readily recognize that it is within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. Therefore it would have been obvious to modify Beeson so that a vinyl material or an ABS material is used as the backing sheet as claimed since one of skill in the art would choose the material used based on the suitability of the material in the environment in which the device is being used.

F. Claim 18 is not unpatentable under 35 USC 103(a)

The Appellant argues that Beeson fails teach using a triangular prism. In response, the examiner relied upon the Gelardi reference for the triangular prism. The Gelardi reference is a cleaning sheet that comprises various shaped cleaning strips for cleaning machine optics and paper paths. Therefore since Beeson and Gelardi are in the same field of endeavor of cleaning paper paths and machine optics, it is clear that one of skill in the art would have recognized the ability to interchange various shaped strips. Both shapes (triangular prism and rectangular) perform the same function of cleaning equally well and therefore, using either shape would allow

the cleaning sheet to perform in the equally well. Therefore the combination of reference is proper.

G. Claim 19 is not unpatentable under 35 USC 103(a)

The Appellant argues that the combination of Kalbow and Beeson is not obvious because the grooves of Kalbow are parallel to the feed path. In response, the direction of the grooves is not claimed. In fact, the claim only states that there is a notch (groove) in the top surface. Therefore since Kalbow teaches notches (or grooves) in the top surface of an open cell foam block, it is clearly within the skill of one in the art to modify the open cell strip of Beeson so that it comprises notches at taught by Kalbow since the notches allow the apparatus to clean more effectively (col. 1, lines 51-54). The Appellant remarks that the notches would not be suitable for the intended purpose of the claimed invention. In response, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Therefore since Beeson in view of Kalbow teach all the essential elements, including a notched top surface, then it is clear that Beeson would be capable of performing the same intended function of the present invention.

H. Claim 20 is not unpatentable under 35 USC 103(a)

The Appellant argues that Beeson fails teach using a triangular prism. In response, the Appellant has not disclosed that having an angle edge (such as on a triangular prism) provides an advantage, is used for a particular purpose, or solves a stated problem. One of skill in the art would have expected the Appellant's invention to perform equally well with either an angled

edge or the edge as taught by Beeson because both perform the same function of cleaning equally well. As stated above, the modified invention would be suitable for the claimed inventions intended purpose since all the structural elements of the claim are met and it is clear then that the modified invention of Beeson would be capable of performing the intended use of the present invention.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Shay L Karls/
Primary Examiner, Art Unit 3723

Conferees:

Joseph Hail

/Joseph J. Hail, III/
Supervisory Patent Examiner, Art Unit 3723

Boyer Ashley

/Boyer Ashley/
Supervisory Patent Examiner, Art Unit 3724